

NATURAL RESOURCES CONSERVATION SERVICE  
INTERIM STANDARD  
for  
**CONTROLLED STREAM ACCESS FOR LIVESTOCK WATERING**  
(No.)  
Code 730

**DEFINITION**

A facility that will provide livestock limited access to streams for drinking water.

**PURPOSE**

To provide livestock access to streams in a manner that will minimize water quality problems when no other practical sources of livestock water are available.

**CONDITIONS WHERE PRACTICE APPLIES**

On sites where there are no other dependable sources of livestock water available such as springs, ponds, wells or where water cannot be diverted from a stream to a tank or trough.

On sites where livestock are excluded from the stream except at the access point.

This practice shall not be used as a convenience to the landowner.

This practice must be approved by an engineer.

**CRITERIA**

The access area shall not be more than 20 linear feet of stream and shall not extend more than five feet into the stream or to the center of the stream, whichever is less.

Where possible, controlled access shall be located in areas where the streambed is stable. Wetlands shall be avoided. Access shall be installed perpendicular to the direction of the stream flow.

Entrance slope to the stream access shall blend in with existing site conditions where possible, but shall not be steeper than 5 to 1. The entrance slope should

be underlain with a geotextile and covered with stone or gravel for a distance of at least 20 feet.

Surface runoff shall be diverted around the entrance slope to prevent erosion of the surfacing materials. Runoff shall be diverted either upstream or downstream to a point from which it cannot flow back toward the entrance ramp.

Any surfacing materials placed in the stream channel should be on the same grade as the natural streambed above and below the site. This will require excavation of the streambed to place the materials.

Geotextile material shall be placed beneath all surfacing materials and shall extend from above the surface water diversion through the entrance ramp to a point in the streambed at least 18 inches beyond the corner posts installed in the stream.

Where stream channels are composed of stable coarse rocky material or solid bedrock, the requirement to extend the geotextile into the channel may be waived upon the written approval of the area engineer.

**Clearing**

All trees and brush shall be removed from the area before excavation starts. The foundation shall be cleared of all stumps, roots, brush, sod, and other debris. All waste materials shall be disposed of in a sightly and workmanlike manner in designated areas out of the natural floodway.

**Foundation Excavation**

All material shall be removed from the foundation of the controlled stream access to the depths, widths, and lengths required by the design.

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

### **Geotextiles**

A geotextile (fabric filter cloth) shall be installed under the entire access as well as in the toe trenches. In the upstream toe trenches, the geotextile shall be back lapped over its own trench.

The geotextile shall be a non-woven needle-punched material with a minimum tensile strength of 120 lbs. (minimum average roll value). The geotextile shall be placed on a grade parallel to the natural streambed prior to construction.

Coarse stone may be used as a subgrade filler between the geotextile and the surfacing material. The surface of the stream access shall consist of a layer, minimum of 8 inches thick, of coarse aggregate meeting the approximate gradation requirements of the North Carolina DOT for ABC coarse aggregate. Washed stone or gravel shall be used in streams designated as North Carolina Designated Public Mountain Trout Waters and their upper tributaries.

Surfacing material will be spread such that a minimum of six inches of cover exists on the geotextile before tracked equipment is operated over it. Failure to cover the cloth with an adequate layer of stone at sites with fine sand or non-plastic silts and clays may result in the creation of "mud bubbles" in the geotextile.

### **Fencing**

Stream channel areas above and below the stream crossing shall be permanently fenced to prevent livestock access to the stream except at the crossing. Fence posts along each side of the crossing shall be installed inside the area covered with geotextile and stone. Fence posts with sharpened ends shall be driven through the geotextile in the center of the trenches.

The wire should be placed on the downstream side of the posts on each fence line. Strands of wire should not be continuous across the crossing, but shall be cut above the normal high water line and secured lightly to the posts so that a buildup of trash will pull the wire away from the post, allowing the trash to move downstream.

In lieu of break-away fences across the stream, other appropriate means of preventing livestock access to the stream, such as swinging gates, electrified chains, or positive control measures may be used.

Fencing shall be built to meet NRCS Technical Guide Standard 382 - Fence.

### **Vegetation**

Disturbed areas not covered or protected shall be established to vegetation as soon as practicable after construction. Seedbed preparation, fertilizing, liming, seeding, and mulching shall be in accordance with NRCS Technical Guide Standard 342-Critical Area Seeding.

### **Permits**

It may be necessary to obtain permits such as the COE 404, State 401 certification, etc. All permits shall be obtained before starting construction.

### **CONSIDERATIONS**

- Locate feeding areas, salt boxes, mineral feeders, and back-rubs away from the controlled stream access.
- Develop a grazing plan that will allow for rotational grazing so that the controlled stream access is used for short duration. See Prescribed Grazing (Code 528A).
- Locate controlled access areas away from shade.
- When practical, locate access area near the center of pasture rather than at extreme ends.

### **PLANS AND SPECIFICATIONS**

Plans and specifications for controlled stream access shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose.

### **OPERATION AND MAINTENANCE**

The controlled stream access and associated fence will be inspected on a frequent basis and after each major storm, and repairs made as needed.